Moving to a clean energy economy

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Overarching comments

Modelling of impacts

- Robust, accurate data upon which to base decisions

Consultation with stakeholders

- Stakeholders, consultation, public participation processes

Understand the objectives of assistance

- Establish and maintain principles, create a level playing field

Carbon price signal

- Assistance should maintain incentives to reduce emissions

Assistance is transitional, updated and reviewed

- Regular reviews of assistance measures ensure equitable allocation
Australian context

‘Multi-speed’ economy – growth concentrated in mining export and some service sectors

Emissions growth over next decade particularly strong in the land sector, fugitive and stationary energy sources

Competitive electricity markets - interconnected grids covering over 90 per cent of the population. Reliance on coal electricity

Relatively small, open economy

Well-developed institutions, financial markets and taxation systems

Impacts on households are mostly concentrated in in households with a lesser ability to alter electricity and gas use
Carbon pricing flows

Conceptually, there are three ways by which carbon prices flow through the economy

*The nature of these flows helps to determine transitional assistance*

– Some businesses can pass on costs to consumers (other businesses and households) or reduce emissions (e.g. by adopting new technology or changing business practices)

– Some businesses will face significant changes in profitability of their operations, being unable to pass on costs or reduce emissions

– Some businesses competing in international markets will be unable to pass on costs or reduce emissions, risking ‘carbon leakage’ to countries without domestic carbon prices
Overview Transitional Support

**Assistance provided in a way that retain incentives to respond to a carbon price**

**Households**

- Household costs (consumer prices) expected to rise by 0.7 per cent – largely due to higher electricity and gas prices
- More than 50% of carbon price revenue raised will go to households, targeted to low-income households and families

**Industry**

- Free carbon unit allocations to emissions-intensive trade-exposed industries such as steel, glass and aluminium
- Grant programs to improve energy efficiency
- Free carbon unit allocations to most emissions intensive generators
Industry Support

The Jobs and Competitiveness Program is ongoing and will provide around $8.6 billion of assistance over the first three years of the carbon price.

The Clean Technology Programs will provide $1.2 billion of assistance to manufacturers over 7 years to support innovation and investment in energy efficient production.
Breakdown of support for manufacturers

- Primary metal and metal products
- Non-metallic mineral products
- Pulp, paper and converted paper products
- Petroleum and coal products
- Basic chemical and chemical products
- Wood products
- Food products
- Printing
- Polymer products and rubber
- Beverage and tobacco products
- Transport equipment
- Furniture and other
- Textile, leather, clothing and footwear
- Fabricated metal products
- Machinery and equipment
Jobs and Competitiveness Program

• To provide **transitional assistance** and reduce the risks of **carbon leakage** in an environmentally and economically efficient manner

• Allocates free carbon units to (currently) 46 emissions-intensive trade-exposed activities based on **production x historic industry average emissions-intensity**
  – Collection and audit of emissions, energy, production, revenue and/or value added data on an activity basis
  – Significant and ongoing consultation with industries over a number of years

• **Maintain incentives to reduce the emissions-intensity of production**
  – Level of assistance for EITE industries commences at 94.5 per cent and 66 per cent of the industry-average emissions intensity and then reduces by 1.3 per cent per annum.
  – A review to be conducted by the Productivity Commission in the third year of the carbon pricing mechanism (2014-15)
How carbon units are allocated

- Assistance provided is based on:
  - the industry average emissions and electricity intensity baselines of production x assistance rates x production

**Two tiers of assistance**

<table>
<thead>
<tr>
<th></th>
<th>Highly-emissions intensive</th>
<th>Moderately-emissions-intensive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue Threshold</strong></td>
<td>2,000tCO(_2)-e / $1m revenue</td>
<td>1,000tCO(_2)-e / $1m revenue</td>
</tr>
<tr>
<td><strong>Value-added Threshold</strong></td>
<td>6,000tCO(_2)-e / $1m value-added</td>
<td>3,000tCO(_2)-e / $1m value-added</td>
</tr>
<tr>
<td><strong>Assistance rates (%)</strong></td>
<td>94.5% declining at 1.3% pa</td>
<td>66% declining at 1.3% pa</td>
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</table>
Renewable Energy and Clean Technology

**Clean Energy Finance Corporation** - to invest in the commercialisation and deployment of renewable energy, energy efficiency and low-pollution technologies

**Clean Technology Programs** - Provided to manufacturing industries in respect of activities not eligible to receive support through the Jobs and Competitiveness Program

**Renewable Energy Target** - 20 per cent renewable energy by 2020

**Australian Renewable Energy Agency** - to manage $3.2 billion in renewable energy research and development funding
Impact of carbon price on energy markets
Measures to Support Energy Markets

**Transitional Assistance**

- $5.5 billion in payments to the most emissions intensive coal-fired generators
- Supports energy security and transition in Australia’s competitive energy markets

**Energy Security Council and financing support**

- Advice in the event that systemic risks to energy security emerge from financial impairment
- Consideration of Government loans to coal-fired generators unable to refinance debt or to purchase future vintage carbon units at auctions
- Loan terms will encourage generators to obtain private finance where possible and be provided where there is a capacity to repay loans

**Modelling of a renewable energy electricity system**

- Australian Energy Market Operator is modelling energy market and transmission planning implications of a move towards 100 per cent renewable energy
Measures to Support Households

- More than 50 per cent of carbon price revenue raised will go to households
- Assistance targeted to low and middle income households
- Assistance delivered through payments and reform of the tax system
- Taxpayers under $80,000 will get a tax cut, with most receiving a tax cut of at least $300 a year
- Payments to pensioners and other beneficiaries
Price Effects

Household electricity prices

Effect of $23/t CO₂-e carbon price

<table>
<thead>
<tr>
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<th>Weekly expenditure</th>
<th>Consumer prices</th>
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<tbody>
<tr>
<td>Electricity</td>
<td>$3.30</td>
<td>10%</td>
</tr>
<tr>
<td>Gas</td>
<td>$1.50</td>
<td>9%</td>
</tr>
<tr>
<td>Food</td>
<td>$0.80</td>
<td>&lt;0.5%</td>
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<tr>
<td>Overall effect</td>
<td>$9.90</td>
<td>0.7%</td>
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### Major Reviews by the Climate Change Authority and Productivity Commission

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td></td>
<td><strong>Climate Change Authority</strong></td>
<td><strong>Productivity Commission</strong></td>
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<td><strong>As Requested:</strong> Ad hoc industry reviews</td>
<td><strong>As Requested:</strong> Steel industry scope three pass through, steel industry competitiveness (2012-2016 only)</td>
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<td>2012</td>
<td>Second half of 2012: Renewable Energy Target</td>
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<td>By February 2014: Recommendations on caps, trajectories &amp; targets</td>
<td>By February 2015: Recommendations on progress of achieving targets &amp; trajectories</td>
<td>By February 2016: Recommendations on caps, trajectories, targets &amp; progress</td>
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<td>By December 2016: Carbon Pricing Mechanism (inc. NGERS)</td>
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<tr>
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<td>2015-2016: Industry assistance review</td>
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**KEY**

- **Climate Change Authority**
- **Productivity Commission**

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**As Requested:** Steel industry scope three pass through, steel industry competitiveness (2012-2016 only)

**As Requested:** Ad hoc industry reviews

**Ongoing:** International Action Capacity Building